



Bureau of Water
November 2, 2016

CERTIFIED MAIL 9214 8969 0099 9790 1406 4851 39
RETURN RECEIPT REQUESTED

Carolina Water Service, Inc.
Attn: Bob Gilroy, Vice President of Operations
150 Foster Brothers Drive
West Columbia, SC 29172

RE: **Corrective Action Plan**
Consent Order No. 16-051-DW
Carolina Water Service, Inc.
Charleswood Subdivision
Public Water System No. 4050008 (PWS)
Richland County

Dear Mr. Gilroy:

On September 23, 2016, South Carolina Department of Health and Environmental Control (Department) Consent Order No. 16-051-DW (Order) was issued to Carolina Water Service, Inc. (Owner). The Order required the Owner to submit to the Department a corrective action plan (CAP) and schedule of implementation to address the maximum contaminant level (MCL) violation for combined radium 226-228 that occurred at the PWS at Well 7 (G40719)/Plant 3 (B40017).

On October 30, 2016, the Department received the CAP submitted by the Owner (**Attachment A**). The CAP stated that, upon Department notification of the violation, the Owner removed Well 7 from service. At that time, Culligan of Lexington completed an assessment of the treatment system at Plant 3 and replaced the identified suspect components of the treatment system. The CAP also stated that the treatment system is currently undergoing a final evaluation by the Radiation Safety Officer, and Well 7 will not be brought back on-line until it is determined that the treatment system is working properly. The CAP stated that Well 7/Plant 3 and the treatment system would be operational and returned to service on December 1, 2016.

This letter serves as notice that the Department has reviewed and approved the CAP and schedule of implementation. The CAP and schedule of implementation shall be incorporated into and become an enforceable part of the Order. Failure to comply with the approved CAP and schedule shall be deemed a violation of the Order, and the stipulated penalty as set forth in the Order shall be due and payable to the Department within thirty (30) days of notification by the Department; in addition to any other remedies or sanctions which may be available to the Department by reason of the Owner's failure to comply with the Order.

If the approved corrective action does not resolve the MCL violation for combined radium 226-228, a revised CAP and schedule of implementation shall be submitted to the Department for approval within fifteen (15) days of the date of notification by the Department. Consent Order No. 16-051-DW shall remain open until a CAP that has been approved by the Department is implemented and completed, and the system returns to compliance in accordance with the running annual average (RAA) result of four (4) consecutive quarterly samples.

This letter does not constitute a permit to construct or an approval to operate, which must be obtained from the Department prior to any public water system modification, construction and operation.

All correspondence related to this letter should be submitted to the Department to my attention at the following address:

S.C. Department of Health and Environmental Control
Bureau of Water - Drinking Water Protection Division
Drinking Water Enforcement Section
2600 Bull Street
Columbia, S.C. 29201

If you have any questions concerning the requirements of this letter, please contact me by e-mail at sullivta@dhec.sc.gov or by telephone at (803) 898-7419.

Sincerely,



Tessa Sullivan

Drinking Water Enforcement Section

cc: Megan Johnson, Drinking Water Compliance Monitoring Section
Midlands BEHS Columbia office
Rick Durham, President
Mac Mitchell, Regional Manager
Scotty Haws, Regional Compliance Manager

Attachment A



October 30, 2016

Ms. Tessa Sullivan
Drinking Water Enforcement Section
Bureau of Water
SC DHEC
2600 Bull Street
Columbia, SC 29201

Re: Consent Order – Revised Corrective Action Plan
Charleswood Subdivision
Public Water System No. 4050008 (PWS)
Richland County

Dear Ms. Sullivan:

Pursuant to the Department's Consent Order 16-051-DW, Carolina Water Service, Inc. (CWS) is submitting the following proposed revised Corrective Action Plan (CAP) for the Charleswood public water system. The Department previously determined that the PWS had exceeded the MCL for Radium 226/228 during the compliance period of July 2015 – July 2016 at its Well #7 facility.

CWS installed a radium removal treatment system at this location in 2008 for combined radium 226/228. This ion exchange treatment system had been effective since 2008 and until this exceedance.

Upon notification to CWS of the exceedance by the Department, Well #7 was removed from service, where it will remain out of service, until which time a full investigation by the system supplier, Culligan of Lexington, can be completed and necessary corrections made. The Charleswood water distribution system is currently being supplemented with drinking water via a permanent and permitted interconnection with the City of Columbia.

Culligan of Lexington completed their investigation into the operation of the varying components of the treatment system on August 3, 2016 and returned on August 8, 2016 to complete the replacement of identified suspect components of the system's automated control assemblies (invoice attached). At this time it was also noted by Culligan of Lexington that the filter media vessels were approaching their end of life span and while the well remained offline it would be an opportune time to change these components out. The new filter media and vessels were ordered by Culligan of Lexington and they were installed on September 12, 2016 (invoice attached)

All corrections described above have been completed and the treatment system is currently going through a final evaluation and testing by Claude Laney, the treatment system's RSO (Radiation Safety Officer) to ensure that the equipment is working properly and will remove radium as designed.

CWS anticipates that Well #7 will be compliant and returned to service on December 1, 2016. A request to do so will be submitted to the Department and the well will be put into operation upon approval.

a Utilities, Inc. company Carolina Water Service, Inc.

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CWS has also contracted with Culligan of Lexington to provide inspections and preventative maintenance of the treatment system on a scheduled semi-annual basis in order to ensure that any faults within the system are discovered in a timely manner (contract attached)

Should you have any questions or comments please feel free to contact me at (800) 272-1919 Ext. 3204.

Sincerely,
CAROLINA WATER SERVICE, INC.

A handwritten signature in black ink, appearing to read "Bob Gilroy", with a long horizontal flourish extending to the right.

Bob Gilroy
Vice President of Operations

Cc: Rick Durham, President
Mac Mitchell, Regional Manager
Scotty Haws, Regional Compliance Manager